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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,640	09/29/2004	Basanth Jagannathan	FIS920040085	5639
45988	7590	04/03/2006	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			NGUYEN, TRAM HOANG	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.D

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/711,640	JAGANNATHAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tram H. Nguyen	2818	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 and 21-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/29/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restriction*

1. Applicant's election without traverse of Group I, Species A, fig. 3, claims 14-20 is acknowledged.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 14-17 and 20 are rejected under 35 U. S. C. § 102 (e) as being anticipated by Herzum et al. (U.S. Pub No. 2004/0238871) (hereinafter Herzum).

Regarding to **claim 14**, Herzum discloses a semiconductor device (fig. 1A) comprising: a substrate (reference numeral 10); a source (reference numeral 14) and a drain (reference numeral 16) arranged within the substrate (reference numeral 10); and substrate contact (reference numeral 12) formed within the substrate in electrical contact with the source (fig. 1A).

Regarding to **claim 15**, Herzum discloses all the limitations of the claimed invention for the same reasons are set-forth above; and since substrate contact has

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being arranged exactly as the structure of the present application. Therefore it must inherently have the same characteristics as claimed, which is to shield the semiconductor device from electrical noise by the Applicant.

Regarding to **claim 16**, Herzum discloses all the limitations of the claimed invention for the same reasons are set-forth above; furthermore fig. 1A shows the substrate contact being in direct physical contact with the source of the semiconductor device.

Regarding to **claim 17**, Herzum discloses all the limitations of the claimed invention for the same reasons are set-forth above. In addition, Herzum also teaches the substrate contact comprises a p+ region (par. [0035], line 3).

Regarding to **claim 20**, Herzum discloses all the limitations of the claimed invention for the same reasons are set-forth above; moreover, fig. 3 of Herzum shows the substrate contact (reference numeral 12) comprises a p-type doped silicon tab contacting source (reference numeral 14) and a silicide layer (reference numeral 52) on a top of the substrate contact (reference numeral 12).

### ***Claim Rejections - 35 U.S.C. § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

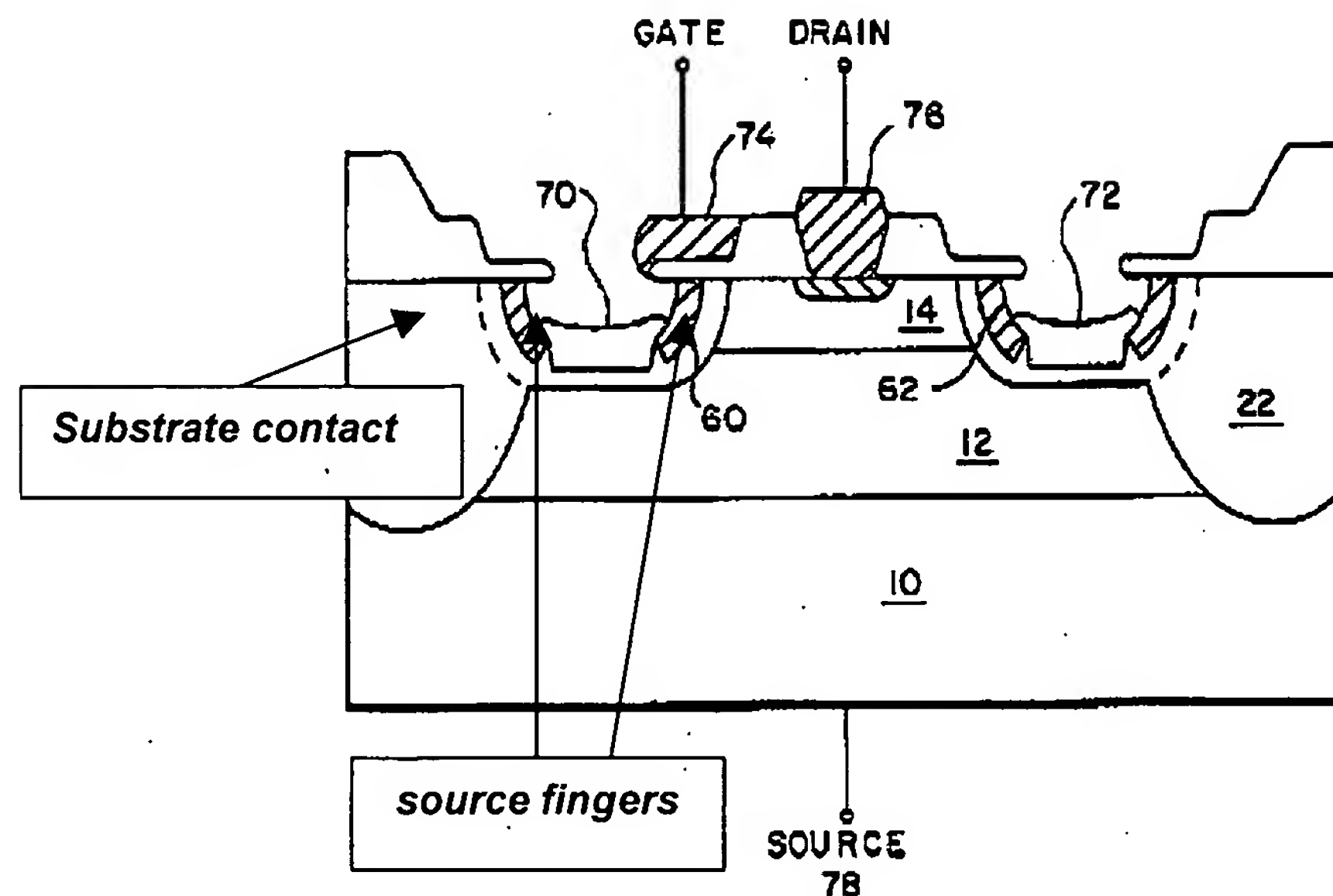
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 18-19 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Herzum in view of Rice (U.S. Patent No. 4,738,936).

Regarding to **claim 18**, Herzum discloses all the limitation of the claimed invention for the same reasons are set-forth above except for not explicitly teach the source comprises a source finger and the substrate contact abuts substantially all of one side of the source finger. However, fig. 1H of Rice shows the substrate contact (reference numeral 20) abuts all of one side of the source finger (reference numeral 60) (col. 4, line 19). Therefore, it is considered obvious to one of ordinary skill in the art, at the time the invention was made, to provide a source direct source to substrate contact in order to reduce expensive packaging techniques (col.1, lines 56-59).



**FIG. 1H**

Regarding to **claim 19**, Herzum and Rice disclose all the limitations of the claimed invention for the same reasons are set-forth above; likewise, Rice also teaches two source fingers arranged within substrate, wherein the substrate contact abuts two of the two source fingers (refer the above fig. 1H).

### **Conclusion**

7. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tram H. Nguyen whose telephone number is (571)272-5526. The examiner can normally be reached on Monday-Friday, 8:30 AM – 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax numbers for all communication(s) is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1625.

THN

**Tram H. Nguyen**  
Art Unit 2818  
March 21<sup>st</sup>, 2006

  
**David Nelms**  
Supervisory Patent Examiner  
Technology Center 2800